2121

PATENT APPLICATION
Do. No. 8371-148

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Shijun Sun

Serial No. 10/017,722 Examiner: Not yet assigned

Filed: December 13, 2001 Group Art Unit: 2121

For: INTEGER COSINE TRANSFORM MATRIX FOR PICTURE CODING

BOX NON FEE AMENDMENT
Assistant Commissioner for Patents,
Washington, D.C. 20231

Prior to examination, enclosed is an amendment in the above-identified application.

The fee has been calculated as shown below.

CLAIMS AS AMENDED					
For:	Number After Amendment	Previous Number	Extra	Rate	Additional Fee
Total Claims	12	12-20*	0	x $18 =	$0
Independent Claims	2	2-3**	0	x $84 =	$0
TOTAL ADDITIONAL FEE FOR THIS AMENDMENT					$0

*greater of twenty (20) or number for which fee has been paid
**greater of three (3) or number for which fee has been paid

☐ Enclosed is Form PTO 1449 Information Disclosure Statement as well as cited references.
☐ Any deficiency or overpayment should be charged or credited to deposit account number 13-1703.

20575
PATENT TRADEMARK OFFICE

Respectfully submitted,

Stephen S. Ford
Reg. No. 35,139

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Box Non-Fee Amendment, Assistant Commissioner for Patents, Washington D.C. 20231 on: 8-29-02

Signature: Jessica Leitch
Jessica Leitch

MARGER JOHNSON & McCOLLOM, P.C.
1030 SW Morrison Street
Portland, OR 97205
(503) 222-3613

Pre-Amdt A
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TID.
09/12/02

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Assistant Commissioner of Patents
Washington, D.C. 20231

PRELIMINARY AMENDMENT

Prior to Examination, please amend the application as follows.

IN THE CLAIMS

Please amend the claims to read as follows:

1. A method for deriving a transform matrix, comprising:

deriving values for a 2^m x 2^m transform matrix using the following normalization constraints:

$$\begin{cases} n_0 = norm \\ \sum_{i=0}^{2^{m-1}-1} n_{2\cdot i+1}^2 = 2^{m-1} \cdot norm^2 \\ \sum_{i=0}^{2^{m-2}-1} n_{4\cdot i+2}^2 = 2^{m-2} \cdot norm^2 \\ \sum_{i=0}^{2^{m-3}-1} n_{8\cdot i+4}^2 = 2^{m-3} \cdot norm^2 \\ \vdots \\ n_{2^{m-1}} = norm \end{cases}$$

where, *norm* is an integer representing a normalization factor of the transform matrix; and

selecting the *norm* that minimizes a DCT distortion function: